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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,265

03/29/2006

Hiroshi Shinoda

Q87319

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

CHOI, LING SIU

ART UNIT

PAPER NUMBER

1762

NOTIFICATION DATE

DELIVERY MODE

01/03/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM
USPTO@SUGHRUE.COM

**Supplemental
Notice of Allowability**

Application No.

10/531,265

Examiner

Ling-Siu Choi

Applicant(s)

SHINODA ET AL.

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Telephone Interview dated November 2010.
2. ☒ The allowed claim(s) is/are 1-4 and 10-14.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date ____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date ____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other ____. |

/Ling-Siu Choi/
Primary Examiner, Art Unit 1762

DETAILED ACTION

1. This Supplemental Office Action is in response to the Telephone Interview dated November 2010 on the cancelled claims which were withdrawn from the Election/Restriction requirement.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

3. The application has been amended as follows:

Add the following claims:

-- 10. A polymer electrolyte comprising a block copolymer according to claim 1 as an active ingredient.

11. A polymer electrolyte membrane containing a polymer electrolyte according to claim 10.

12. A catalyst composition containing a polymer electrolyte according to claim 10.

13. A fuel cell using a polymer electrolyte membrane according to

claim 11.

14. A fuel cell using a catalyst composition according to claim 12. --

Allowable Subject Matter

4. Claims 1-4 and 10-14 are allowed.

5. The following is an examiner's statement of reasons for allowance:

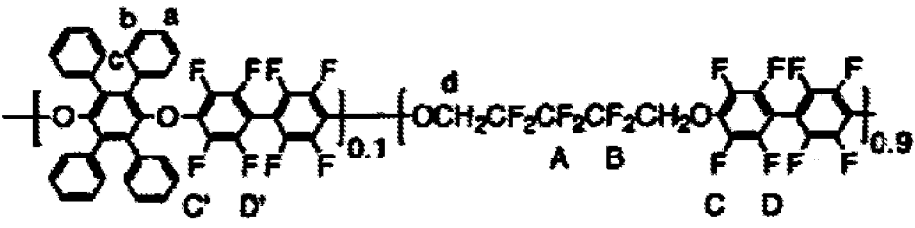
The present claims are allowable over the closest references: Miyatake et al.

[Macromolecules, **34**, 2065-2071 (2001)].

Summary of Claim 1:

A block copolymer characterized in that said block copolymer has	
	at least one block having an acid group and
	at least one block having substantially no acid group,
	<u>one end group of a repeating unit</u> in at least one block of all blocks is oxygen and/or sulfur, and
	at least one repeating unit of a block having substantially no acid group contains a halogen atom.

Miyatake et al. disclose a polymer electrolyte for fuel cells, wherein the polymer electrolyte comprises an aromatic copolymer containing sulfonated tetraphenyl phenylene (hexaphenylbiphenylene), fluorinated alkane, perfluorobiphenylene moieties (col. 1, page 2065; page 2068):

	
one block having an acid group	one block having substantially no acid group
<u>one end group</u> of a repeating unit in at least one block of all blocks is oxygen and/or sulfur	one repeating unit of a block having substantially <u>no acid group</u> containing a halogen atom

However, Miyatake et al. do not teach or fairly suggest the claimed block copolymer, wherein the block copolymer has at least one block having an acid group and at least one block having substantially no acid group, one end group of a repeating unit in at least one block of all blocks is oxygen and/or sulfur, and at least one repeating unit of a block having substantially no acid group contains a halogen atom.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Ling-Siu Choi/

Primary Examiner, Art Unit 1762

December 27, 2010

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